(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
4 December 2003 (04.12.2003)

PCT

(10) International Publication Number
WO 03/100481 A1

(51) International Patent Classification[7]: G02B 6/00, F21V 5/00

(21) International Application Number: PCT/US03/12310

(22) International Filing Date: 22 April 2003 (22.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2002/148622 23 May 2002 (23.05.2002) JP

(71) Applicant *(for all designated States except US)*: **3M INNOVATIVE PROPERTIES COMPANY** [US/US]; 3M Center, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **HASHIMOTO, Kazuyuki** [JP/JP]; 2-7-32 Yabe, Sagamihara-city, Kanagawa 229-0032 (JP).

(74) Agents: **PATCHETT, David, B.** et al.; Office of Intellectual Property Counsel, Post Office Box 33427, Saint Paul, MN 55133-3427 (US).

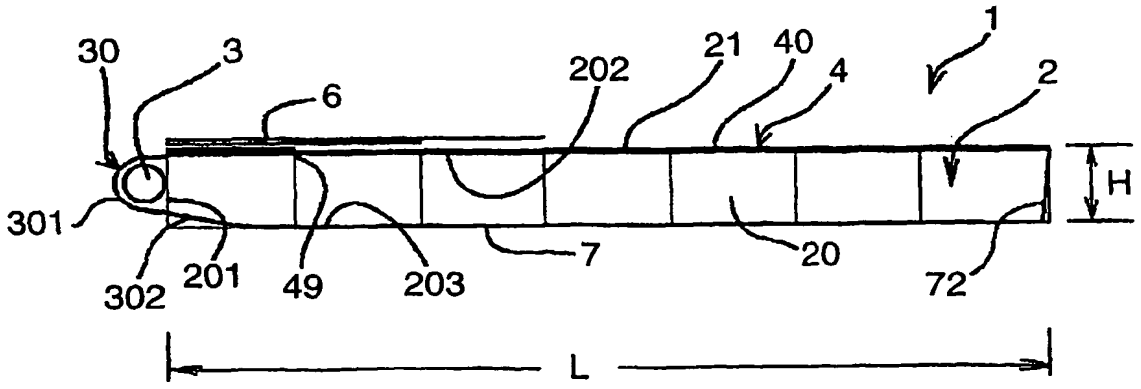
(81) Designated States *(national)*: AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

[Continued on next page]

(54) Title: SURFACE LIGHT-EMITTING DEVICE



(57) Abstract: There is provided a surface light-emitting device capable of preventing an increase in power consumption even if the length of the light-emitting surface of the surface light-emitting device is greater than the width, and capable of emitting light uniformly without decreasing the brightness of the light-emitting surface nor increasing the height of the light guiding space. In the present surface light-emitting device, the incident plane (201) is one of two sides of the light guiding space (20) in opposition in the longitudinal direction. The light-transmitting plate (4) includes a diffusion filter (6) which covers a specific area of the surface of the light-transmitting plate (4) near the light source (3). The remaining area of the surface of the light-transmitting plate at a distance from the light source (3) is not covered with the diffusion filter (6). The diffusion filter (6) is formed of a laminate in which a plurality of diffuse transmission films are layered. The number of diffuse transmission film (6) layers is highest in the area closest to the light source (3) so that the light transmittance is increased as the distance from the light source (3) increases due to a decrease in the diffusion of light, and the number is gradually decreased as the distance from the light source (3) increases.

WO 03/100481 A1

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.